

CLAIMS

1. A method of fabricating a plurality of individual liquid crystal cells, each comprising a first substrate (6) comprising a back electrode and a second active matrix substrate (5), which are assembled with a sealing frame (7) producing a cavity (8) between the two substrates for liquid crystals, the first substrates being formed collectively on a transparent support, the second substrates being formed collectively on a silicon wafer, and comprising contact pads (P_i), characterized in that
- means of connection (20) are formed on each first substrate (6) opposite said contact pads (P_i) of the second substrates;
 - the sealing frame (7) is disposed between each first and second substrate of a cell, so as to overlap said contact pads (P_i), and a portion (P'_i) of the means of connection opposite, said frame comprising a seal made of insulating material and conducting elements (7a) disposed in said seal, so as to ensure electrical continuity between each pad (P_i) and a corresponding element (P'_i) of the means of connection, and
 - the second substrates are cut from the silicon wafer, along cutting lines (LV_j , LH_i) corresponding to the contour of the sealing frame (7),
 - each of said second cut substrates is transferred to and assembled on the transparent support, with a corresponding first substrate and
 - a subsequent step of separation into individual liquid crystal cells by cutting the glass support is performed so that the zone of each first substrate comprising the means of connection is overhanging (D) with respect to the second substrate to which it is assembled.
2. The method of fabrication as claimed in claim 1, characterized in that it comprises a subsequent step of filling the cavities (8) with liquid crystals.

3. The method of fabrication as claimed in claim 1 or 2, characterized in that said conducting elements (7a) are conducting balls (22).

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4. The method of fabrication as claimed in claim 1 or 2, characterized in that said conducting elements (7a) are resin tags (24) furnished with a conducting layer (25).

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5. The method of fabrication as claimed in claim 1 or 2, characterized in that said conducting elements (7a) are metal tags (23) produced on the silicon substrate.

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6. The method of fabrication as claimed in any one of claims 1 to 5, characterized in that said conducting elements (7a) are spacers.

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7. The method of fabrication as claimed in claim 6, characterized in that other spacer elements (E) are disposed in the seal, said elements being conducting or otherwise, and of the same nature as or of a different nature from the conducting elements (7a).

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8. A liquid crystal cell comprising a first transparent substrate (6) comprising a back electrode and a second silicon substrate (5) comprising an active matrix circuit with contact pads (P_i), said substrates being assembled with a sealing frame (7) producing a cavity (8) between the two substrates for liquid crystals, characterized in that the second substrate has a cutout (LV_j , LH_i) corresponding to the contour of the sealing frame (7), in that the cell comprises means of connection (20) of the active matrix circuit that are relocated onto the first substrate (6) and are disposed overhanging (D) with respect to the second substrate (5), in that the sealing frame (7) is formed of a seal which overlaps said contact pads (P_i) on the second substrate and a portion (P'_i) of said means of

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connection opposite, and of conducting elements (7a) disposed in the seal which ensure electrical continuity between each of said contact pads and a corresponding portion of the means of connection.

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9. The cell as claimed in claim 8, characterized in that said conducting elements (7a) are spacers.

10. The cell as claimed in claim 9, characterized in that other spacer elements (E) are disposed in the seal, said elements being conducting or otherwise, and of the same nature as or of a different nature from said conducting elements (7a) of the seal.